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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/927,006	08/09/2001	Dexian Dou		4184
7590 03/04/2004				
Jiajiu Shaw 3166 Shamrock Ct. Ann Arbor, MI 48105			EXAMINER CHISM, BILLY D	
			ART UNIT 1654	PAPER NUMBER

DATE MAILED: 03/04/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/927,006	Applicant(s) DOU ET AL.	
	Examiner B. Dell Chism	Art Unit 1654	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1-12 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:

SET I: Groups 1-16

1. Claims 1-8, drawn to a peptide of sequence {4} or X-{4}-Y and pharmaceutical products thereof, classified in class 514, subclass 9.
2. Claims 1-8, drawn to a peptide of sequence {4'} or X-{4'}-Y and pharmaceutical products thereof, classified in class 514, subclass 9.
3. Claims 1-8, drawn to a peptide of sequence {5} or X-{5}-Y and pharmaceutical products thereof, classified in class 514, subclass 9.
4. Claims 1-8, drawn to a peptide of sequence {5'} or X-{5'}-Y and pharmaceutical products thereof, classified in class 514, subclass 9.
5. Claims 1-8, drawn to a peptide of sequence X-{4}-Ala-{5}-Y and pharmaceutical products thereof, classified in class 514, subclass 9.
6. Claims 1-8, drawn to a peptide of sequence X-{4'}-Ala-{5'}-Y or X-{4'}-Cys-{5'}-Y and pharmaceutical products thereof, classified in class 514, subclass 9.
7. Claims 1-8, drawn to a peptide of sequence X-{5}-Ala-{4}-Y or X-{5}-Cys-{4}-Y and pharmaceutical products thereof, classified in class 514, subclass 9.
8. Claims 1-8, drawn to a peptide of sequence X-{5'}-Ala-{4'}-Y or X-{5'}-Cys-{4'}-Y and pharmaceutical products thereof, classified in class 514, subclass 9.

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9. Claims 1-8, drawn to a peptide of sequence X-{4}-Ala-{5'}-Y and pharmaceutical products thereof, classified in class 514, subclass 9.
10. Claims 1-8, drawn to a peptide X-{4}-(GlyGlyGlySer)_n-{5}-Y and pharmaceutical products thereof, classified in class 514, subclass 9.
11. Claims 1-8, drawn to a peptide X-{4'}-(GlyGlyGlySer)_n-{5'}-Y and pharmaceutical products thereof, classified in class 514, subclass 9.
12. Claims 1-8, drawn to a peptide X-{5}-(GlyGlyGlySer)_n-{4}-Y and pharmaceutical products thereof, classified in class 514, subclass 9.
13. Claims 1-8, drawn to a peptide cyclic Cys-{4}-Ala-{5}-Cys or Ala-{4}-Ala-{5}-Ala and pharmaceutical products thereof, classified in class 514, subclass 9.
14. Claims 1-8, drawn to a peptide cyclic Cys-{4'}-Ala-{5'}-Cys or Ala-{4'}-Ala-{5'}-Ala and pharmaceutical products thereof, classified in class 514, subclass 9.
15. Claims 1-8, drawn to a peptide cyclic Cys-{5}-Ala-{4}-Cys or Ala-{5}-Ala-{4}-Ala and pharmaceutical products thereof, classified in class 514, subclass 9.
16. Claims 1-8, drawn to a peptide cyclic Cys-{5'}-Ala-{4'}-Cys or Ala-{5'}-Ala-{4'}-Ala and pharmaceutical products thereof, classified in class 514, subclass 9.

SET II: Groups 17-32 as follows,

17. Claims 9-12, drawn to a method of using a peptide of sequence {4} or X-{4}-Y and pharmaceutical products thereof, classified in class 514, subclass 9.
18. Claims 9-12, drawn to a method of using a peptide of sequence {4'} or X-{4'}-Y and pharmaceutical products thereof, classified in class 514, subclass 9.

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19. Claims 9-12, drawn to a method of using a peptide of sequence {5} or X-{5}-Y and pharmaceutical products thereof, classified in class 514, subclass 9.
20. Claims 9-12, drawn to a method of using a peptide of sequence {5'} or X-{5'}-Y and pharmaceutical products thereof, classified in class 514, subclass 9.
21. Claims 9-12, drawn to a method of using a peptide of sequence X-{4}-Ala-{5}-Y and pharmaceutical products thereof, classified in class 514, subclass 9.
22. Claims 9-12, drawn to a method of using a peptide of sequence X-{4'}-Ala-{5'}-Y or X-{4'}-Cys-{5'}-Y and pharmaceutical products thereof, classified in class 514, subclass 9.
23. Claims 9-12, drawn to a method of using a peptide of sequence X-{5}-Ala-{4}-Y or X-{5}-Cys-{4}-Y and pharmaceutical products thereof, classified in class 514, subclass 9.
24. Claims 9-12, drawn to a method of using a peptide of sequence X-{5'}-Ala-{4'}-Y or X-{5'}-Cys-{4'}-Y and pharmaceutical products thereof, classified in class 514, subclass 9.
25. Claims 9-12, drawn to a method of using a peptide of sequence X-{4}-Ala-{5'}-Y and pharmaceutical products thereof, classified in class 514, subclass 9.
26. Claims 9-12, drawn to a method of using a peptide X-{4}-(GlyGlyGlySer)_n-{5}-Y and pharmaceutical products thereof, classified in class 514, subclass 9.
27. Claims 9-12, drawn to a method of using a peptide X-{4'}-(GlyGlyGlySer)_n-{5'}-Y and pharmaceutical products thereof, classified in class 514, subclass 9.

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28. Claims 9-12, drawn to a method of using a peptide $X-\{5\}-(\text{GlyGlyGlySer})_n-\{4\}-Y$ and pharmaceutical products thereof, classified in class 514, subclass 9.
 29. Claims 9-12, drawn to a method of using a peptide cyclic $\text{Cys}-\{4\}-\text{Ala}-\{5\}-\text{Cys}$ or $\text{Ala}-\{4\}-\text{Ala}-\{5\}-\text{Ala}$ and pharmaceutical products thereof, classified in class 514, subclass 9.
 30. Claims 9-12, drawn to a method of using a peptide cyclic $\text{Cys}-\{4'\}-\text{Ala}-\{5'\}-\text{Cys}$ or $\text{Ala}-\{4'\}-\text{Ala}-\{5'\}-\text{Ala}$ and pharmaceutical products thereof, classified in class 514, subclass 9.
 31. Claims 9-12, drawn to a method of using a peptide cyclic $\text{Cys}-\{5\}-\text{Ala}-\{4\}-\text{Cys}$ or $\text{Ala}-\{5\}-\text{Ala}-\{4\}-\text{Ala}$ and pharmaceutical products thereof, classified in class 514, subclass 9.
 32. Claims 9-12, drawn to a method of using a peptide cyclic $\text{Cys}-\{5'\}-\text{Ala}-\{4'\}-\text{Cys}$ or $\text{Ala}-\{5'\}-\text{Ala}-\{4'\}-\text{Ala}$ and pharmaceutical products thereof, classified in class 514, subclass 9.
2. The inventions are distinct or independent, each from the other because:
- The Groups of SET I and SET II are related as product and process of use. The groups of each set can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case the proteins of SET I can be used for immunoassays or biological markers.

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The product inventions of Set I are distinct in that the products are structurally and functionally different. A search for {4} would not lead to results on {4'} or {5} or {5'} or there derivatives. The structures do not share a similar core structure and do not possess the same function.

The method inventions of Set II are distinct wherein the different methods comprise use of different ingredients (i.e., different sequences).

3. Because these inventions are distinct for the reasons given above and the search required for SET I is not required for nor inclusive of a search of SET II, and because the search of one Group is not required for any other Group, restriction for examination purposes as indicated is proper to avoid search burdens on the examiner.

4. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

5. The examiner has required restriction between product and process claims. Where applicant elects claims directed to the product, and a product claim is subsequently found allowable, withdrawn process claims that depend from or otherwise include all the limitations of the allowable product claim will be rejoined in accordance with the provisions of MPEP § 821.04. **Process claims that depend from or otherwise include all the limitations of the patentable product** will be entered as a matter of right if the amendment is presented prior to final rejection or allowance, whichever is earlier.

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Amendments submitted after final rejection are governed by 37 CFR 1.116; amendments submitted after allowance are governed by 37 CFR 1.312.

In the event of rejoinder, the requirement for restriction between the product claims and the rejoined process claims will be withdrawn, and the rejoined process claims will be fully examined for patentability in accordance with 37 CFR 1.104. Thus, to be allowable, the rejoined claims must meet all criteria for patentability including the requirements of 35 U.S.C. 101, 102, 103, and 112. Until an elected product claim is found allowable, an otherwise proper restriction requirement between product claims and process claims may be maintained. Withdrawn process claims that are not commensurate in scope with an allowed product claim will not be rejoined. See "Guidance on Treatment of Product and Process Claims in light of *In re Ochiai*, *In re Brouwer* and 35 U.S.C. § 103(b)," 1184 O.G. 86 (March 26, 1996). Additionally, in order to retain the right to rejoinder in accordance with the above policy, Applicant is advised that the process claims should be amended during prosecution either to maintain dependency on the product claims or to otherwise include the limitations of the product claims. **Failure to do so may result in a loss of the right to rejoinder.** Further, note that the prohibition against double patenting rejections of 35 U.S.C. 121 does not apply where the restriction requirement is withdrawn by the examiner before the patent issues. See MPEP § 804.01.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to B. Dell Chism whose telephone number is 571-272-0962. The examiner can normally be reached on 7:30 AM - 4:30 PM, Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brenda Brumback can be reached on 571-272-0961. The fax phone number for the

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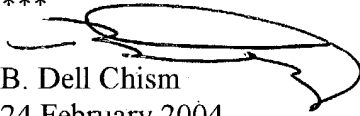
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organization where this application or proceeding is assigned is 703-872-9306 for regular communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1235.

B. Dell Chism
24 February 2004



Brenda Brumback
BRENDA BRUMBACK
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1600